

WHAT IS CLAIMED IS:

1. An image input apparatus comprising:
photoelectric conversion means for acquiring image
information of an object and outputting signals; and
5 correcting means for and correcting offset
components contained in the signals output from said
photoelectric conversion means components, wherein said
correcting means adjusts a fluctuation of the offset
components generated during acquiring image
10 information.
2. An image input apparatus according to claim 1,
wherein said photoelectric conversion means acquires
the image information of the object from a plurality of
15 divided areas and outputs the signal from each of a
plurality of output units corresponding to each of the
plurality of divided areas.
3. An image input apparatus according to claim 2,
20 wherein the signals from the plurality of areas are
read separately to right and left directions
respectively.
4. An image input apparatus according to claim 2,
25 wherein the offset components include a level
difference of the signals between the areas output from
the plurality of divided areas.

5. An image input apparatus according to claim 1,
wherein said correcting means includes:

calculating means for calculating the fluctuation
of the offset components in accordance with the signal
5 output from said photoelectric conversion means during
the image information acquiring;

subtracting means for subtracting the offset
components from the signal output from said
photoelectric conversion means; and

10 adjusting means for adjusting the offset
components to be subtracted by said subtracting means,
in accordance with an output signal from said
calculating means.

15 6. An image input apparatus according to claim 5,
wherein the offset components are a signal output from
said photoelectric conversion means during a period
other than the image information acquiring, and contain
an average value obtained through addition of signals
20 of the areas and averaging thereof.

7. An image input apparatus according to claim 5,
wherein said calculating means calculates an average
value of signals not obtained through photoelectric
25 conversion.

8. An image input apparatus according to claim 7,

wherein the signal not obtained through photoelectric conversion means includes a signal in a non-image pixel portion.

5 9. An image input apparatus according to claim 5, wherein adjusting the offset components by said adjusting means is executed during the period image information acquiring.

10 10. An image input apparatus comprising:
photoelectric conversion means for acquiring image information of an object and outputting signals; and
correcting means for correcting offset components contained in the signals output from said photoelectric
15 conversion means, in accordance with the signals output from said photoelectric conversion means during image information acquiring and the signals output from said photoelectric conversion means during a period other than the image information acquiring.

20 11. An image input apparatus according to claim 10, wherein said photoelectric conversion means acquires the image information of the object from a plurality of divided areas and outputs the signal from
25 each of a plurality of output units corresponding to each of the plurality of divided areas.

12. An image input apparatus according to claim 11, wherein the signals from the plurality of areas are read separately to right and left directions respectively.

5

13. An image input apparatus according to claim 11, wherein the offset components include a level difference of the signals between the areas output from the plurality of divided areas.

10

14. An image input apparatus according to claim 10, wherein said correcting means includes:

15

calculating means for calculating the fluctuation of the offset components in accordance with the signal output from said photoelectric conversion means during the image information acquiring;

20

subtracting means for subtracting the offset components from the signal output from said photoelectric conversion means; and

adjusting means for adjusting the offset components to be subtracted by said subtracting means, in accordance with an output signal from said calculating means.

25

15. An image input apparatus according to claim 14, wherein the offset components are a signal output from said photoelectric conversion means during the

period other than the image information acquiring, and contain an average value obtained through addition of signals of the areas and averaging thereof.

5 16. An image input apparatus according to claim 14, wherein said calculating means calculates an average value of signals not obtained through photoelectric conversion.

10 17. An image input apparatus according to claim 16, wherein the signal not obtained through photoelectric conversion means includes a signal in a non-image pixel portion.

15 18. An image input apparatus according to claim 14, wherein adjusting the offset components by said adjusting means is executed during the period other than image information acquiring.

20 19. An image input apparatus comprising:
photoelectric conversion means for acquiring image information of an object with dividing the image information into a reference area and at least one other area, and outputting a signal from each of a plurality of output units corresponding to the areas;
25 and

adjusting means for adjusting a signal level of an

output signal from the at least one other area so as to make equal substantially to a signal level of an output signal from the reference area, in accordance with the signals from the reference area and the other area.

5

20. An image input apparatus according to claim 19, wherein said adjusting means compares output pixel signals from near a boundary between the reference area and the other area, and in accordance with a comparison result, adjusts the signal level of the output pixel signal from the other area.

10

21. An image input apparatus according to claim 20, wherein said adjusting means includes:

15

presuming means for presuming a relation between the signal level of an output pixel signal from the reference area and the signal level of an output pixel signal from the at least one other area in accordance with a ratio between the output pixel signals from near the boundary between the reference area and the other area; and

20

correcting means for correcting the output pixel signal from the other area in accordance with a presumption result by said presuming means.

25

22. An image input apparatus according to claim 21, wherein said presuming means calculates the ratio

between the signal levels of the output pixel signals
from near the boundary between the reference area and
the at least one other area for each of a plurality of
level areas provided by dividing the signal level of
5 the output pixel signal from at least one the other
area near the boundary of the reference area.

23. An image input apparatus according to claim
22, wherein if there are in the same level area a
10 plurality of output pixel signals from the at least one
other area near the boundary of the reference area,
said presuming means calculates an average value of the
output pixel signals from the at least one the other
area in the same level area, and calculates the ratio
15 between the signal levels of the output pixel signals
in accordance with the calculated average value.

24. An image input apparatus according to claim
22, wherein if there are in the same level area more
20 than predetermined number of output pixel signals from
the at least one other area near the boundary of the
reference area said presuming means inhibits to
calculate an average value of the output pixel signals
from the at least other area in the same level area and
25 does not calculate the ratio between the signal levels
of the output pixel signals.

25. An image input apparatus according to claim 21, wherein if a difference between the output pixel signals from near the boundary between the reference area and the other area is larger than a predetermined value, said presuming means excludes the output pixel signals from data to be used for calculating the ratio between the signal levels of the output pixel signals.

26. An image input apparatus according to claim 21, wherein as to the level area where no output pixel signal from the at least one other area near the boundary of the reference area, said presuming means calculates the ratio between the signal levels through an interpolation calculation.

27. An image input apparatus according to claim 21, wherein if a new output pixel signal is acquired from the at least one other area near the boundary of the reference area when an image of a new object is read, said presuming means updates the ratio between the signal levels in the level area corresponding to the output pixel signal in accordance with the newly acquired output pixel signal.

28. An image input apparatus according to claim 19, wherein the number of image gradation steps of an output pixel signal after the signal level is adjusted

by said adjusting means is set smaller than the number of image gradation steps of the output pixel signal before the signal level is adjusted by said adjusting means.

5

29. An image input apparatus according to claim 19, further comprising shading correcting means for executing a shading correction of an output pixel signal output from said photoelectric conversion means, wherein said adjusting means adjusts the output pixel signal after subjected to the shading correction by said shading correcting means.

30. An image processing method of processing signals output from photoelectric conversion means for acquiring image information of an object and outputting the signals, said method comprising a step of:

correcting offset components contained in the signals output from said photoelectric conversion means, wherein said correcting step includes a step of adjusting a fluctuation of the offset components generated during acquiring image information.

31. An image processing method of processing signals output from photoelectric conversion means for acquiring image information of an object and outputting the signals, said method comprising a step of:

correcting offset components contained in the
signals output from said photoelectric conversion
means, in accordance with the signals output from said
photoelectric conversion means during image information
5 acquiring and the signals output from said
photoelectric conversion means during a period other
than the image information acquiring.

32. An image processing method of processing a
10 signal output from photoelectric conversion means for
acquiring image information of an object with dividing
the image information into a reference area and at
least one other area, and outputting a signal from each
of a plurality of output units corresponding to the
15 areas, said method comprising a step of:

adjusting a signal level of an output signal from
the at least one other area so as to make equal
substantially to a signal level of an output signal
from the reference area, in accordance with the signals
20 from the reference area and the other area.

33. A storage medium storing a program for
processing signals output from photoelectric conversion
means for acquiring image information of an object and
25 outputting the signals, said program comprising:

a code of correcting offset components contained
in the signals output from said photoelectric

36. An image input system comprising:

5 an original support for placing an original thereon;

 an illumination lamp for illuminating the original placed on said original support;

 the image input apparatus recited in one of claims

10 1, 10 and 19;

 a lens for focussing light reflected from the original illuminated with said illumination lamp on the image input apparatus; and

 a plurality of mirrors for guiding the light

15 reflected from the original to said lens.